

A NEW FOSSIL CYPRINOID, LEUCISCUS TURNERI, FROM THE MIOCENE OF NEVADA.

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The name *Leuciscus turneri* is proposed for a small fish obtained by Mr. H. W. Turner, of the U. S. Geological Survey, from the Tertiary of the west side of the valley of the Big Smoky River, Silver Peak Quadrangle, Esmeralda County, Nevada.

Type.—No. 4302a, U.S.N.M., in Catalogue of Fossil Vertebrates.

In its general aspect this fish bears a strong resemblance to such small cyprinoids as *Semotilus* and *Leuciscus*, being of much the same general proportions as *Leuciscus lineatus*. The head, as in that species, is a trifle over $3\frac{1}{2}$ in the total length;¹ depth of head two-thirds of length. There are 19 to 20 precaudal vertebrae and 17 to 18 caudals, while *Leuciscus lineatus* and *Semotilus atromaculatus* have, respectively, 20+17 and 21+18.

The tail is slightly forked, the lobes slightly rounded.

The anterior end of dorsal is in line with the anterior end of ventrals, and the posterior end of dorsal is in line with anterior of anal. In *Leuciscus* the dorsal is directly over ventrals and in *Semotilus* the dorsal is behind the ventrals. In both *Leuciscus* and *Semotilus* the anterior end of the anal is a little back of posterior edge of dorsal. The fin rays are as follows: Dorsal, 9; anal, 10; pectoral, 11 to 12; ventral, 9; caudal, 23. These may be compared with *Leuciscus lineatus* and *Semotilus atromaculatus* as follows:

Species.	D	A	P	V	C
<i>Leuciscus turneri</i>	9	10	11	9	23
<i>Leuciscus lineatus</i>	9	8	17	9	23
<i>Semotilus atromaculatus</i>	7	8	14	8	21

¹ According to Jordan and Evermann the head is $4\frac{1}{4}$ in total length, but this does not accord with the specimen here used for comparison.

The greater number of resemblances are with *Leuciscus lineatus*.

It is quite probable that the very fine rays of the pectorals have failed to make an impression, which would account for the lesser number of rays in *turneri* as compared with others.

Epineurals, epihaemals, and epicentrals are present, but there are no apparent traces of epipleurals, nor should there be if the affinities of this fish are as they have been assumed.

The extreme length of the type specimen, which is of the average size, from tip of nose to center of caudal, is $5\frac{1}{8}$ inches; from tip of nose to process of last vertebra, $4\frac{1}{4}$ inches.

With the exception of a few small fragments it is the impressions of bones that are preserved and not the bones themselves, and this fish is placed with the *Cyprinidae* on account of its strong general resemblance to that group of fishes, since the pharyngeal teeth have not in any case been found. For the same reason it is kept in the genus *Leuciscus*, as no sufficiently good characters can be assigned to these specimens to warrant the establishment of a new genus.

EXPLANATION OF PLATE VIII.

Leuciscus turneri, reduced, from the type specimen.